GENERAL ACCOUNTING

REPORT TO THE CONGRESS

73-0202



Economies Available By Better Selection Of Office Copiers By Federal Agencies

General Services Administration

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

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FEB. 3,1972



COMPTROLLER GENERAL OF THE UNITED STATES WASHINGTON, D.C. 20548

B-146930

To the President of the Senate and the

Speaker of the House of Representatives

This is our report on the economies available by better selection of office copiers by Federal agencies. Contracts for office copiers are administered by the General Services Administration.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Administrator of General Services; and the heads of Federal departments and agencies.

Comptroller General of the United States

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DIGEST

WHY THE REVIEW WAS MADE

During 1970 the Federal Government spent \$67 million to rent and \$2 million to purchase office copiers.

Federal agencies obtain these machines by placing orders with office copier suppliers under indefinite quantity <u>contracts</u> awarded by the General Services Administration (GSA). Each agency is responsible for selecting the most economical copiers to meet its needs from a variety of makes, models, and rental plans.

The General Accounting Office (GAO) wanted to determine whether the agencies were in fact selecting the most economical models or rental plans. Because 70 percent of the Government's copying costs were paid to the Xerox Corporation, GAO based its review on a random sample of 3 percent of the copiers rented from Xerox during the last quarter of contract year 1969 and the first quarter of contract year 1970.

FINDINGS AND CONCLUSIONS

On the basis of the sample, about 30 percent of the 14,500 copiers rented from Xerox during the test periods were not the most economical to meet agency needs.

If agencies had selected the most economical models or rental plans, the Government could have saved \$227,000 in rental costs and achieved \$656,000 in labor efficiencies during the last quarter of the 1969 contract year. Savings of \$283,000 in rental costs and efficiencies of \$802,000 in labor could have been achieved during the first quarter of the 1970 contract year. (See p. 8.)

Some agencies did not have the information needed to compare the operating costs of the various copiers available under GSA contracts. Such information was not required to be included in the suppliers' catalogs describing available copiers. (See p. 15.)

RECOMMENDATIONS OR SUGGESTIONS

GSA should ask office copier suppliers to include specific cost data in their catalogs to assist agencies in making the proper selection of copiers. (See p. 16.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

GSA agreed with GAO's recommendation and will request that suppliers include information in their catalogs to assist agencies. (See p. 16.)

GAO suggests that the heads of Federal departments and agencies emphasize within their organizations the need to carefully consider cost and productivity factors, such as those discussed in this report, in making selections of copier makes, models, and rental plans.

MATTERS FOR CONSIDERATION BY THE CONGRESS

Over the years the Congress has indicated its concern over the increasing costs of Government paper work. This report discusses how more effective selection of office copier models and rental plans can achieve economies.

CHAPTER 1

INTRODUCTION

The Government's cost of renting office copiers has increased from \$20 million during 1964 to \$67 million during 1970. During 1970 the Government rented about 17,000 office copiers through contracts awarded by GSA.

The Government spent about \$14 million for copier supplies and about \$2 million for the purchase of office copiers during 1970. Purchases of office copiers by agencies have declined during recent years because the rates charged by copier suppliers and the technological changes in office copying have, in many cases, made it advantageous to rent, rather than purchase, office copiers.

The Federal Property and Administrative Services Act of 1949 (40 U.S.C. 471) made the General Services Administration responsible for providing an efficient and economical system for the procurement and supply of personal property and non-personal services needed by Federal agencies and for prescribing policies and guidelines for use by agencies in the procurement and supply of personal property. GSA operates a Government-wide procurement program under which indefinite quantity Federal Supply Schedule contracts for certain commonly used products and services are awarded annually.

GSA awards Schedule contracts for office copiers and related supplies. GSA requires that contractors distribute to requesting agencies catalogs describing the various copiers and related supplies available and the terms, conditions, and prices under which the copiers and supplies may be acquired. A variety of makes, models, and procurement alternatives are available under the contracts to meet agencies needs for various amounts and types of copying.

The Federal Property Management Regulations provide that agencies be responsible for selecting the most economical copiers to meet their needs. When selecting office copiers the agencies are to review the functional and financial advantages of all available copying processes. Factors to be considered in determining the advantages of the various copiers include copier depreciation and rental costs, supply costs, copying speed, labor costs and type of material to be reproduced.

Agencies acquire copiers under Schedule contracts by placing orders directly with the suppliers. As of October 31, 1971, 27 office copier suppliers had Schedule contracts with GSA. (See app. II.)

SCOPE OF REVIEW

Our review was concentrated on Xerox office copiers because they accounted for about 70 percent of the Government's costs for office copiers during the periods covered by our review. It did not include analyses of agencies' selections of office copier makes.

We did not attempt to determine whether the number of copies being produced was needed. Also we did not attempt to determine whether the copiers should have been purchased, rather than rented, or whether a need existed for the copiers at each location. Although we show the economies available by switching Xerox models and rental plans, analyses of copier requirements might show instances in which economies would result also by switching to copiers available from other suppliers.

We did not consider the supply costs associated with use of the various model Xerox copiers because such costs did not vary significantly. Agencies should consider the costs of supplies, however, when comparing the cost advantages of copiers available from various suppliers because the supply costs for copiers using specially treated paper constitute a higher proportion of the total cost of making copies than the supply costs for copiers using bond paper.

We requested that Xerox provide us with data showing the usage by agencies of office copiers rented through the Xerox Schedule contract. In response to our request, Xerox prepared for the periods October 1 to December 31, 1969, and January 1 to March 31, 1970, reports showing the number of copies made on copiers rented to agencies and the rental costs of the copiers.

We used data provided by Xerox to analyze the copier rental costs and the labor efficiencies associated with use of the copiers. For our analyses of rental costs, we used the rates charged to agencies through the Xerox Schedule contract. For our analyses of the labor efficiencies associated with the various copiers, we used information provided by Xerox which showed the productivity rates of Xerox copiers and the estimated amounts of time employees spent waiting to use the copiers.

The productivity rates of Xerox copiers vary according to the speed of the copiers and the number of copies being made of documents. The amount of time spent by employees waiting to use a copier is affected by the productivity rate of the copier and the number of documents copied. Increased labor efficiencies would result through reductions in the time it takes to obtain copies.

In estimating the value to the Government of the labor efficiencies associated with the various copiers, we used a labor rate of \$3.85 an hour, including fringe benefits, for the period October 1 to December 31, 1969, and \$4 an hour, including fringe benefits, for the period January 1 to March 31, 1970. These labor rates were based on information we obtained regarding the average wage scales of Federal employees using copiers.

We assumed that, on the average, three copies were made of each document copied on Xerox copier models 330, 660, and 813; five copies of each document on Xerox copier models 420, 720, and 914; and six copies of each document on Xerox copier models 2400, 3600, and 7000. These averages were based on information we obtained during our review regarding the use made of the various copiers.

We reviewed GSA regulations and Schedule contracts relating to office copiers. We interviewed officials of the Department of Agriculture; Department of Health, Education, and Welfare; Department of the Treasury; Department of the Army; GSA; Veterans Administration; and Xerox Corporation. We discussed policies and practices for renting office copiers with agency officials and obtained their views on methods of achieving more economical copier selections.

CHAPTER 2

NEED FOR BETTER SELECTION OF OFFICE COPIERS

AND RELATED RENTAL PLANS

In many cases agencies were not selecting the most economical copier models and rental plans. About 30 percent of the 14,500 copiers rented by the Government from Xerox were not the most economical models to rent and/or were not rented under the most economical plans that would have satisfied agencies' requirements. We found that some agencies did not have specific information readily available for use in comparing the costs of operating the various copiers obtainable under GSA's contracts.

ALTERNATIVES AVAILABLE FOR LOWERING COPYING COSTS

We anlayzed, on a systematic random-sample basis, agencies' use of about 3 percent of the copiers rented from Xerox during the last 3 months of the contract year ended December 31, 1969, and the first 3 months of the contract year which began January 1, 1970. We selected these periods so that we could determine whether agencies' rental practices differed during contract periods.

On the basis of our sample, we estimate that, during these 3-month periods, 3,891 and 4,852 of the copiers, respectively, were not the most economical models to rent and/or were not rented under the most economical plans. We estimate also that during these periods savings in rental costs and labor efficiencies, amounting to \$883,000 and \$1.1 million, respectively, could have been achieved. (See app. III.) The following table shows the alternatives that agencies could have used to reduce their copying costs and our estimates of the savings in rental costs and labor efficiencies that could have been achieved during the periods reviewed through the use of the most economical copier models and/or plans.

	October 1 to December 31, 1969 Number Labor				January 1 to March 31, 1970 Number Labor			
Most economical	of	Rental	Labor effi-		of	Rental	Labor effi-	
alternatives available	copiers	savings	<u>ciencies</u>	<u>Total</u>	copiers	savings	<u>ciencies</u>	Total
		(00	0 omitted)			(00	0 omitted)
Lower cost rental plans Faster copiers available at no additional rental	1,149	\$136	\$ -	\$136	889	\$130	\$ -	\$ 130
costs	630	_	175	175	1,704	-	442	442
Faster copiers having lower rental costs Slower copiers having	333	96	76	172	370	145	92	237
lower rental costs	556	117	~50	67	408	79	-35	44
Faster copiers having higher rental costs	1,223	-122	455	333	1,481	<u>-71</u>	303	232
Total	3,891	\$227	\$ <u>656</u>	\$883	4,852	\$283	\$802	\$1,085

DEST POCUMENT AVAILABLE

Lower cost rental plans

We estimated that, during the 3-month periods ended December 31, 1969, and March 31, 1970, for 1,149 and 889 copiers, respectively, rental plans having lower rental rates were available. Use of the lower cost rental plans would have reduced rental costs by \$136,000 during the 3-month period ended December 31, 1969, and by \$130,000 during the 3-month period ended March 31, 1970.

Under the Xerox Schedule contract agencies, at no cost, can change copier rental plans by notifying Xerox at least 15 days prior to the beginning of a month. The number of rental plans available under the contract during the periods covered by our analyses is shown below.

	Number o	
	From	From
	Oct. 1	Jan. 1
	to ·	to
Copier	Dec. 31,	Mar. 31,
<u>model</u>	<u> 1969</u>	<u> 1970</u>
330	2	
420	2	-
660	3	1
720	3	2
813	3	2
914	3	2
2400	3	3
3600	1	1
7000		1

For example, an agency rented a model 2400 copier under rental plan A. Between January 1 and March 31, 1970, the agency made 53,700 copies at a rental cost of \$1,699. Under the Xerox Schedule contract, the rental rates for the three rental plans available for the model 2400 copier were as follows:

Plan A

First three copies of each document \$0.043 a copy
Fourth copy through 10th copy of
each document .023 a copy
11th copy through 499th copy of each
document .008 a copy

Minimum monthly rental--\$300 for each copier.

Plan B

Minimum monthly rental--\$1,150 for up to 115,000 copies. An additional charge of \$0.00566 for each copy over 115,000.

Plan C

First 5,000 copies a month \$0.03 a copy
From 5,001 to 20,000 copies a month .025 a copy
From 20,001 to 44,000 copies a month .015 a copy
Over 44,000 copies a month .00566 a copy

Minimum monthly rental -- \$400 for each copier.

Our analyses showed that the rental costs for making 53,700 copies, computed on a monthly basis, would have amounted for the 3-month period to \$1,699 under rental plan A, \$3,450 under rental plan B, and \$1,445 under rental plan C. Thus the rental costs under rental plan C would have been \$254 less than the \$1,699 in rentals under rental plan A.

Faster copiers available at no additional rental costs

We estimated that, during the 3-month periods ended December 31, 1969, and March 31, 1970, 630 and 1,704 copiers, respectively, having faster operating speeds, were available for use in Federal agencies at no additional rental cost. Use of the faster copiers would have resulted in increased labor efficiencies amounting to \$175,000 during the 3-month period ended December 31, 1969, and \$442,000 during the 3-month period ended March 31, 1970.

Under one rental plan in the Xerox Schedule contract, identical rates were charged for copies made regardless of the model rented, although higher minimum monthly rentals were charged for console models and faster copiers. Thus agencies could change to faster copiers, at no additional rental cost, when the number of copies made exceeded the number which could be made at the minimum rental cost of a faster copier.

Because it takes less time to make copies on faster copiers, the labor efficiency for making copies is greater. For example, the cost of the time to make 20,000 copies on Xerox copiers would have been as follows, assuming that on the average, five copies were made of each original and that the cost of labor was \$4 an hour:

		Labor costs		
	Rate copies		For	
Copier	are made		20,000	
model	each hour	Each copy	<u>copies</u>	
813	220	\$0.01818	\$364	
914	286	.01399	280	
660	414	.00966	193	
720	484	.00826	165	
2400	1068	.00375	75	
3600 and				
7000	1326	.00302	60	

Furthermore when faster copiers are used labor efficiency is further increased because waiting time at the copiers is reduced or eliminated.

For example, between January 1 and March 31, 1970, an agency made 58,248 copies on a model 720 copier. During each of the 3 months, the rental cost for the model 720 copier was the same as the rental cost that would have been incurred for the faster model 2400 copier, Thus the agency could have rented a model 2400 copier at no additional rental cost. Our analyses showed that \$390 in labor efficiencies would have resulted if the model 2400 copier had been rented, as shown in the following table.

Costs for	Model 720 copier	Model 2400 <u>copier</u>	Efficiencies possible
Rent Labormaking copies Laborwaiting time to	\$1,508 480	\$1,508 218	\$ - 262
use copier	<u> 148</u>	20	<u>128</u>
Total	\$ <u>2,136</u>	\$ <u>1,746</u>	\$ <u>390</u>

Faster copiers having lower rental costs

We estimated that, during the 3-month periods ended December 31, 1969, and March 31, 1970, 333 and 370 copiers, respectively, could have been replaced by copiers having lower rental costs and faster operating speeds. Use of the lower cost, faster copiers would have resulted in rental cost reductions and labor efficiencies amounting to \$172,000 during the 3-month period ended December 31, 1969, and \$237,000 during the 3-month period ended March 31, 1970.

For example, between October 1 and December 31, 1969, an agency made 46,500 copies on a model 720 copier at a cost of \$1,500 for rent and \$466 for labor. Our analyses showed that the agency could have rented a model 2400 copier for \$1,280. Furthermore because the model 2400 copier is faster, labor efficiencies amounting to \$290 would have been achieved. Thus rental savings and labor efficiencies amounting to \$510 would have been achieved if the model 2400 copier had been rented.

Slower copiers having lower rental costs

We estimated that, during the 3-month periods ended December 31, 1969, and March 31, 1970, 556 and 408 copiers, respectively, could have been replaced with copiers having lower rental costs but slower speeds. Use of the lower cost copiers would have resulted in savings amounting to \$67,000 during the 3-month period ended December 31, 1969, and \$44,000 during the 3-month period ended March 31, 1970.

In these cases the lower cost copiers would have been capable of producing the number of copies needed but at slower speeds than the copiers that were rented. Although additional labor time would have been required, the savings in rental payments would have been greater than the reduced labor efficiencies.

For example, between January 1 and March 31, 1970, an agency made 31,143 copies on a model 2400 copier, at a cost of \$1,200 for rent and \$106 for labor. Our analyses showed that the agency could have rented a model 720 copier for

\$853 and that labor time would have cost \$273. Thus the agency would have saved \$180 if the model 720 copier had been rented.

Faster copiers having higher rental costs

We estimated that, during the 3-month periods ended December 31, 1969, and March 31, 1970, 1,223 and 1,481 copiers, respectively, could have been replaced with copiers having faster operating speeds but having higher rental costs. Use of the faster copiers would have resulted in economies amounting to \$333,000 during the 3-month period ended December 31, 1969, and \$232,000 during the 3-month period ended March 31, 1970. In these cases the increased labor efficiencies would have been greater than the increased rental costs.

For example, October 1 and December 31, 1969, an agency made 68,012 copies on a model 720 copier, at a cost of \$1,499 for rent and \$733 for labor. Our analyses showed that the agency could have rented a model 2400 copier for \$1,600, an increase of \$101. Because the model 2400 copier has a faster operating speed, however, labor efficiencies amounting to \$446 would have been achieved. Thus the agency would have saved \$345 if the model 2400 copier had been rented.

PRODUCTIVITY AND SUPPLY COST INFORMATION NOT INCLUDED IN SUPPLIERS' CATALOGS

GSA requires that Schedule contractors distribute to requesting Federal agencies catalogs concerning the products offered. GSA did not require that the suppliers include in the catalogs specific information regarding copier productivity or supply use.

Our analysis of the use of Xerox office copiers showed that, during the 3-month periods ended December 31, 1969, and March 31, 1970, labor efficiencies amounting to \$656,000 and \$802,000, respectively, could have been realized if more economical copiers models and/or rental plans had been selected. We noted during our review that information had been developed regarding the productivity rates of Xerox copiers and the amount of time employees spend waiting to use copiers. We noted also that the Department of the Army and Department of Agriculture had developed information concerning the costs of certain supplies used to operate various copiers.

We discussed with officials of the Department of Agriculture; Department of the Army; Veterans Administration; Department of the Treasury; and Department of Health, Education, and Welfare the information used when selecting office copiers. We were advised that these agencies relied on catalogs distributed by the suppliers, guidelines distributed by GSA, advice of suppliers' salesmen, and experience of persons selecting the copiers. Some of the agencies did not have specific information readily available for use in comparing the costs to operate the various copiers. Most of the officials agreed that specific information in the catalogs on copier productivity and supply consumption would be helpful in selecting office copiers.

CHAPTER 3

CONCLUSIONS AND RECOMMENDATION

CONCLUSIONS

Agencies were not selecting the most economical copier models and/or rental plans available under the Xerox Schedule contracts. Through better selection of office copiers and/or rental plans, agencies would have reduced the cost of renting office copiers and provided opportunities for more efficient use of employee time.

Some agencies did not have specific information readily available for use in comparing the costs to operate the various copiers available under GSA's contracts. We noted that information has been developed concerning the productivity rates of certain copiers and the cost of supplies to operate various copiers.

We believe that agencies should have information readily available for use in selecting office copiers. We concluded that GSA could materially assist agencies in making the proper selections of copiers by asking copier suppliers to include in their catalogs distributed to agencies specific data concerning the productivity and the supply use associated with their copiers.

RECOMMENDATION TO THE ADMINISTRATOR OF GENERAL SERVICES

We recommend that GSA ask office copier suppliers to include specific cost data in their catalogs distributed to agencies to assist the agencies in making the proper selection of copiers.

GSA COMMENTS

The Administrator of General Services, in commenting on a draft of this report by letter dated October 12, 1971 (see app. I), advised us that GSA concurred with our recommendation and would request that suppliers include in their catalogs information to assist Federal agencies in the selection of copier equipment and/or rental plans.

UNITED STATES OF AMERICA GENERAL SERVICES ADMINISTRATION

WASHINGTON, D.C. 20405



OCT 12 1971

Honorable Elmer B. Staats Comptroller General of the United States General Accounting Office Washington, DC 20548

BEST DOCUMENT AVAILABLE

Dear Mr. Staats:

Thank you for the opportunity to review your revised draft audit report, "Economies Available to Federal Agencies by Better Selection of Office Copiers."

We concur in the recommendation contained in the draft report to Congress, although we have some reservations as to the degree of effectiveness which will result from implementation of the recommendation. In future solicitations, however, we will request our contractors to include in their authorized pricelists specific factual and objective information to assist Federal agencies in the selection of copier equipment and/or plans. At the present time we are not sufficiently staffed to verify such information and, in view of the current stress for economy within the Government, we do not anticipate that we will have available staff for such verification in the foreseeable future. Consequently, we propose to notify agencies that the information has not been verified and to caution them that each individual agency is still responsible for the selection of office copier equipment and plans which will prove to be most beneficial to the Government, as required by the Federal Property Management Regulations.

We would be pleased to meet with your representatives prior to issuance of the final report if there is any question concerning our position.

Sincerely,

Robert L. Kunzig Administrator

Keep Freedom in Your Future With U.S. Savings Bonds

OFFICE COPIER SUPPLIERS HAVING

SCHEDULE CONTRACTS WITH THE

GENERAL SERVICES ADMINISTRATION

AS OF OCTOBER 31, 1971

A. B. Dick Company

Addressograph Multigraph Corporation

American Photocopy Equipment Company

Bohn Rex-Rotary Division of VLN, Inc.

Charles Bruning Company, Division of Addressograph Multigraph Company

Comperipherals, Inc., Roneo Division

Dennison Manufacturing Company

Ditto Division, Bell & Howell Company

Electrocopy Corporation

GAF Corporation

Gestetner Corporation

Inter-Continental Photocopy Corporation

Kee Lox Manufacturing Company

Minolta Corporation

Old Town Corporation

Olivetti Corporation of America

Pitney Bowes

Remington Rand Office Machines Division of Sperry, Rand Corporation

Royfax-Royal Typewriter Company Division, Litton Business Systems, Inc.

Savin Business Machines Corporation

Saxon Business Products, Inc.

SCM Corporation

Scott Graphics, Inc.

Standard Duplicating Machines Corporation

3M Business Products Sales, Inc.

Viewlex, Inc.

Xerox Corporation

ESTIMATED SAVINGS IN RENTAL COSTS AND LABOR EFFICIENCIES WHICH COULD HAVE BEEN ACHIEVED

	Oct. 1 to Dec. 31, 1969	Jan. 1 to Mar. 31, 1970
Number of copiers analyzed	349	347
Estimated number of copiers not the most economical models to rent and/or under the most economical rental plans	3,891	4,852
Sampling error (+ or -) (note a)	644	694
Estimated amount of rental savings and labor efficiencies	\$883,000	\$1,085,000
Sampling error (+ or -) (note a)	\$223,000	\$ 265,000

^aSampling errors are stated at the 95-percent confidence level; thus there is approximately one chance in 20 that the results of a review of the records of all copiers rented from Xerox would differ from the estimates by more than the amounts shown. For example, there is 95-percent confidence that the actual number of copiers categorized as uneconomical was between 3,247 and 4,535 during the period October 1 to December 31, 1969.

PRINCIPAL OFFICIALS OF THE GENERAL SERVICES ADMINISTRATION RESPONSIBLE FOR ADMINISTRATION OF ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office			
	Fr	om	<u>I</u>	0
ADMINISTRATOR OF GENERAL SERVICES: Robert L. Kunzig	Mar.	1969	Prese	nt
COMMISSIONER, FEDERAL SUPPLY SER- VICE:				
Milton S. Meeker	Jan.	1972	Prese	nt
Lewis E. Spangler (acting)	May	1971	Jan.	1972
H. A. Abersfeller	Mar.	1970	May	1971
Lewis E. Spangler (acting)	Dec.	1969	Mar.	1970
Arthur F. Sampson	June	1969	Dec.	1969
Lewis E. Spangler (acting)	May	1969	June	1969

Copies of this report are available from the U. S. General Accounting Office, Room 6417, 441 G Street, N W., Washington, D.C., 20548.

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